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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,221	04/02/2001	Kwan-Dong Lee	0234-0002	6705

7590

07/29/2004

TransPotomac Plaza
1033 N. Fairfax St., Suite 306
Alexandria, VA 22314

EXAMINER

STORK, KYLE R

ART UNIT	PAPER NUMBER
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2178

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/822,221

Applicant(s)

LEE, KWAN-DONG

Examiner

Kyle R Stork

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 8-11, 15-17 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-11, 15-17, and 20-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This office action is in response to preliminary amendment filed on 10/10/01.
2. In the amendment claims 6-7, 12-14 and 18-19 are cancelled and claims 21-27 are added. Claims 1-5, 8-11, 15-17, 20-27 are pending. Claims 1, 8, 10, and 11 are independent claims.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because of undue length and multiple paragraphs. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claim 24 recites the limitation "said designated Chinese character" in line 2.

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 2, and 3 rejected under 35 U.S.C. 102(b) as being anticipated by White et al (U.S. 4,408,199).

As per independent claim 1, White et al. disclose an apparatus for inputting Chinese characters into a data processing device consisting of:

- A Chinese character inputting means having
 - A plurality of radical keys representing radicals constituting a Chinese character (Figure 1, item 16; column 5, lines 39-42)
 - A plurality of combination keys, each combination key representing a combination frame of the radicals constituting a Chinese character (Figure 11; column 15, lines 44-48; column 17, lines 46-50)
 - A memory means storing a plurality of Chinese characters composed of radicals (column 6, lines 53-55)
- A Chinese character generating means, generating Chinese characters from memory means, by inputting radical keys and combination keys (column 17, lines 51-57)

As per dependent claim 2, White et al. discloses the apparatus above further comprising a means for displaying Chinese characters (column 3, line 68 - column 4, line 2; column 5, lines 20-22).

As per dependent claim 3, White et al. discloses the apparatus of claim 1 wherein the plurality of combination keys represent a group of combination frames grouped by similar combination frames of a plurality of Chinese characters (Figure 1, item 18, specifically the row of numbers; Figure 11).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over White et al.

As per dependent claim 4 White fails to disclose 20-35 combination keys. However, White discloses 16 combination keys that can be nested in order to produce several alternate combinations (Figure 11, Table 8 in Column 19). It would have been obvious to one skilled in the art at the time of the invention to have created more than 16 combination keys in White et al. in order to allow a user to enter one combination key

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to designate the relative location of radicals as opposed to a plurality of combination of combination keys to designate the relative location of radicals.

11. Claim 5, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. as applied to claim 1 above, and further in view of Zhang et al (U.S. 5,197,810).

As per dependent claim 5 White discloses the limitations similar to those in claim 1, and the same rejection is incorporated herein. However, White fails to teach an apparatus wherein the maximum number of radical keys inputted for designating a Chinese character is 4. However, Zhang teaches an apparatus where the number of radical keys inputted for designating a Chinese character is 4 (column 7, lines 27-38).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to have incorporated Zhang's feature into White, since one of ordinary skill in the art at the time of the applicants invention would have clearly recognized that motivation to combine the apparatus of White and the apparatus of Zhang would be in order to allow users to input Chinese characters in a manner that increases input speed, improves efficiency, and reduces redundancy (Zhang: column 7, lines 27-29).

As per dependent claim 21 White discloses the limitations similar to those in claim 1, and the same rejection is incorporated herein. However, White fails to teach an apparatus wherein the first radical key represents the first radical according to the writing order of a Chinese character. However, Zhang teaches an apparatus where the first radical key represents the first radical according to the writing order of a Chinese

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character (Claim 4ci "Taking first three and last radicals but omitting the fourth through the next to last radicals when the disassembled radicals are more than four").

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined the apparatus of White and the apparatus of Zhang, since it would have allowed the user to maintain the writing order accepted for Chinese character creation.

As per dependent claim 22 White discloses the limitations similar to those in claim 1, and the same rejection is incorporated herein. However, White fails to teach an apparatus wherein the last radical key represents the last radical according to the writing order of a Chinese character. However, Zhang teaches an apparatus where the last radical key represents the last radical according to the writing order of a Chinese character (Claim 4ci "Taking first three and last radicals but omitting the fourth through the next to last radicals when the disassembled radicals are more than four").

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined the apparatus of White and the apparatus of Zhang, since it would have allowed the user to maintain the writing order accepted for Chinese character creation.

12. Claims 8, 9, 10, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. in view of Huang (US 5,724,031).

As per independent claim 8 White discloses an apparatus for inputting Chinese characters into a data processing device comprising:

- A Chinese character inputting means having:

- A plurality of radical keys representing radicals constituting a Chinese character (Figure 1, item 16; column 5, lines 39-42)
- A plurality of keys, each combination key representing a combination frame of the radicals constituting a Chinese character (Figure 11; column 15, lines 44-48; column 17, lines 46-50)
- A memory means storing a plurality of Chinese characters, each Chinese character composed of radicals (column 6, lines 53-55)

White fails to disclose entering a last radical key and a combination key.

However, Huang discloses a Chinese character generating means generating Chinese characters from said memory means, each Chinese character being designated by sequentially inputting a last radical key and a combination key (Claim 3 iii).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined White's apparatus of inputting radicals and combination keys with Huang's apparatus of entering a last character key and a combination key, since it allows the user to signal the end of a Chinese character and the beginning of the next character.

As per dependent claim 9, White fails to disclose the apparatus wherein the last radical key represents the last radical according to the writing order of a Chinese character. However, Huang discloses the apparatus where the last radical key represents the last radical according to the writing order of a Chinese character (claim 3 iii).

It would have been obvious to one skilled in the art at the time of the applicants invention to have modified White's system to make the last radical key the last radical according to the writing order of a Chinese character. Motivation to do so would have been to maintain the tradition order of creating Chinese characters.

As per independent claim 10 White et al. disclose a method for inputting Chinese characters into a data processing device comprising:

- Inputting a combination key representing a combination frame of radicals constituting a Chinese character (column 17, lines 51-57)
- Generating a Chinese character by the input of a radical key and a combination key (column 17, lines 51-57)

White fails to teach inputting a last radical key representing a last radical according to the writing order of a Chinese character. However, Huang teaches inputting a last radical key representing the last radical according to the writing order of Chinese characters (claim 3 iii).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined White's method of inputting the last character with Huang's combination key in order to create a Chinese character, since it would have allowed the user to signal the end of inputting keystrokes for one Chinese character and the beginning of keystrokes for a next Chinese character.

As per dependent claim 17 White and Huang disclose the method of claim 10 above wherein the combination keys represent a combination frame grouped by similar

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combination frames of a plurality of Chinese characters (White: Figure 1, item 18, specifically the row of numbers; Figure 11

13. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. in view of Wu et al. (U.S. 6,360,197).

As per independent claim 11 White et al. disclose a method for inputting Chinese characters into a data processing device comprising:

- Inputting a first radical key representing a first radical according to the writing order of a Chinese character (column 17, lines 51-57)
- Inputting a combination key representing a combination frame of radicals constituting a Chinese character (column 17, lines 51-57)
- Inputting at least one remaining radical keys constituting a Chinese character (column 17, lines 51-57)

White fails to teach discriminating whether a Chinese character is designated by the input. However, Wu teaches discrimination between Chinese characters and non-characters (Figure 4; column 4, lines 31-48).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined White's method of inputting characters with Wu's method of discriminating whether a character is inputted, since it would have allowed a user to determine if a character had been created erroneously by the keystroke method (Wu: column 1, lines 25-28).

14. Claims 20, 23, 24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over White and Wu as applied to claim 11 above.

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15. As per claims 20 and 23 White and Wu disclose the limitations similar to those in claim 11, and the same rejection is incorporated herein. However, White and Wu disclose a method for inputting Chinese characters with a 44 key keyboard (White: column 1, lines 7-10)

White and Wu fail to disclose a keyboard with 146-214 radical keys. It would have been obvious to one skilled in the art at the time of the applicant's invention to have modified White and Wu's system to create a keypad with more than 44 radical keys, since it would have allowed users to enter many more radicals with a single keystroke instead of two or more keystrokes.

As per dependent claim 24 White and Wu disclose the limitations similar to those in claim 11, and the same rejection is incorporated herein. However, White and Wu disclose a step of generating designated Chinese characters when it is discriminated that Chinese characters are designated (column 8, lines 44-49, the parser is read to be a Chinese character discrimination device).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have displayed a Chinese character when one has been entered, since it have allowed the user to see if the keystrokes inputted created a Chinese character.

As per dependent claim 26 White and Wu disclose the limitations similar to those in claim 11, and the same rejection is incorporated herein. White also discloses a method wherein the combination keys represent a combination frame grouped by similar

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combination frames of a plurality of Chinese characters (White: Figure 1, item 18, specifically the row of numbers; Figure 11

As per dependent claim 27 White and Wu disclose the limitations similar to those in claim 11, and the same rejection is incorporated herein. However, White and Wu fail to disclose 20-35 combination keys. However, it would have been obvious to one skilled in the art at the time of the applicant's invention to have created more than 16 combination keys, since it would have allowed a user to enter one combination key to designate the relative location of radicals as opposed to entering a plurality of combination of combination keys to designate the relative location of radicals.

16. Claims 15 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over White and Wu as applied to claim 11 above, and further in view of Zhang.

As per dependent claim 15, White and Wu disclose the limitations similar to those in claim 11, and the same rejection is incorporated herein. However, White and Wu fail to teach an apparatus wherein the maximum number of radical keys inputted for designating a Chinese character is 4. However, Zhang teaches an apparatus where the number of radical keys inputted for designating a Chinese character is 4 (column 7, lines 27-38).

It would have been obvious to one of ordinary skill in the art at the time of the applicants invention to have combined the method of White and Wu and the method of Zhang, since it would have allowed users to input Chinese characters in a manner that increases input speed, improves efficiency, and reduces redundancy (Zhang: column 7, lines 27-29).

As per claim 25 White and Wu disclose the limitations similar to those in claim 11, and the same rejection is incorporated herein. However, White and Wu fail to teach that the last inputted radical key represents the last radical key according to the writing order of a Chinese character. However, Zhang teaches that the last radical inputted corresponds with the last radical in the writing order of Chinese characters (Claim 4c).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined the method of White and Wu and the method of Zhang, since it would have allowed the user to maintain the writing order accepted for Chinese character creation.

Double Patenting

17. Applicant is advised that should claim 20 be found allowable, claim 23 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Chang US 5236268: A method and apparatus for inputting Chinese characters
- Hua US 5378068: A method and apparatus for inputting Chinese characters with a memory unit storing characters in a dictionary

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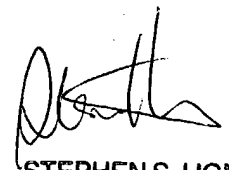
- Goo et al. US 4559615: A method and apparatus for inputting and storing Chinese characters in memory
- Feng US 4669901: A method and apparatus for inputting Chinese characters
- Wong US 6604878: A method and apparatus for inputting a traditional and simplified Chinese character set
- Yu US 5790055: A method and apparatus for inputting Chinese characters and frames in which the radicals of a character are displayed
- Chen US 6054941: A method and apparatus for inputting ideographic characters where several character possibilities are displayed after the fourth keystroke
- Monroe et al. US 4829583: A method and apparatus for processing ideographic characters

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle R Stork whose telephone number is (703) 605-1203. The examiner can normally be reached on Monday-Friday (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (703) 308-5465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



STEPHEN S. HONG
PRIMARY EXAMINER